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LIGHT IN THE HOME





LIGHT IN THE HOME

Dedicated to the women of
America who are making their
homes more attractive, more
comfortable and happier.





IT IS a far cry from the home of grandmother's day to the home of today. Modern furnishings and fabrics are of an entirely new era. Luxuriant, colorful floor coverings, upholsteries and hangings are now available for everyone. But far more significant than this are the entirely new conveniences which have come to the home through the electric power lines.

One of the most important of these conveniences is the electric light. However, full appreciation of the decorative and utilitarian advantages of electric light have come only in the past few years as a result of ever increasing efficiency and variety of lamp sizes and ever decreasing cost of electricity.

Today the modern homemaker can take full advantage of better lighting facilities. She can make electric light one of her greatest aids in beautifying her home and making it cozier, more attractive and a better place in which to live.

On the pages of this book, you will find many practical suggestions for beautifying your home through the proper use of light. Try them in your own home. Test them out. Then select those ideas which appeal to you most and make them a part of your home. You will find them practical, inexpensive and easy to install.





PART ONE

The TWO-FOLD PURPOSE of LIGHT

MODERN lighting in the home has a two-fold purpose. The first is to give you eye-comfort illumination. The second is to decorate.

Before the introduction of the electric light, all artificial light sources were flames. The lighting fixtures had to be located in such a manner as to protect the walls, ceilings, and decorations. They had to be placed in an upright position. They needed air for combustion. They had to be placed in such a manner that it would be easy to light and extinguish them. This was the tradition of centuries of artificial light which greeted the advent of the electric light. It was only natural that this tradition was followed in the design and location of electric lighting fixtures in the home.

It has only been in the past few years that this tradition has been out-moded. New discoveries concerning the relationship of light to sight have played an important part in setting new standards for illumination. And new discoveries of new decorative possibilities of electric light have opened the way to an entirely new era in modern illumination.

Unfortunately, practically every home today bears evidence of the old tradition of artificial light. Lighting fixtures resembling the candle-stick and the oil lamp are found everywhere. They are found on tables, stuck out from the walls, and hung from the ceilings. Lamps resembling a flame, but much brighter than a flame, are found unshaded. In most cases lighting of this nature is not only harmful to the eyes but completely out of keeping with the new era of design and decoration.

Therefore, when appraising the lighting in your home for its two-fold purpose, keep in mind that it is a new type of illumination and a new type of decoration that you are seeking.

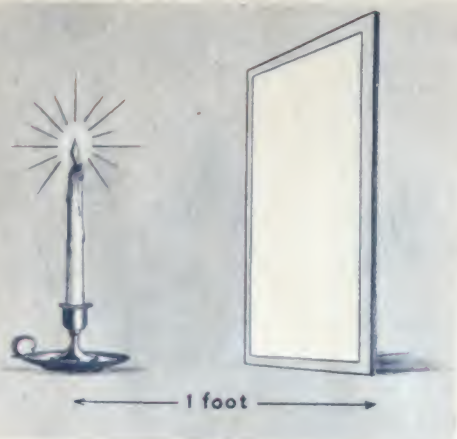


Better Light-Better Sight

CONSIDER first the all-important purpose of lighting in providing proper eye comfort and efficient illumination.

Scientists have recently discovered that lighting in eight out of ten homes today is entirely inadequate for good eyes and good sight. They have used as their measure of light the *footcandle*. The footcandle is the intensity of illumination on a perpendicular screen one foot away from a standard candle. This unit is the measure of lighting intensity the same as a degree is a measure of temperature.

For instance, the scientists explain that the intensity of light outdoors on a clear sunshiny day is 10,000 footcandles, in the shade of a tree 1,000 footcandles. For hundreds and thousands of years man lived outdoors and his eyes were developed to see naturally under these intensities. It has been only in the last several hundred years that man moved indoors, thus creating the demand for an artificial light source. It must be remembered that each succeeding generation of man's life indoors has demanded more and more critical work from the eye. However, in spite of man's ability to produce a very efficient substitute for natural sunlight, people in general have not given sufficient thought about its proper use for eyesight conservation. The average intensity of illumination in the home today is only about five footcandles, which is only a fraction of the amount of illumination outdoors.



The intensity of light diminishes rapidly as the distance from the source increases. If this screen were placed two feet away from the candle, the light intensity would then be only $\frac{1}{4}$ of a foot-candle; at three feet, the intensity would be $\frac{1}{9}$ of a foot-candle.

Here in the outdoor sunshine the intensity of light may reach 10,000 foot-candles. Man has lived outdoors for countless centuries and his eyes have been developed to see clearly and easily in this amount of light.

Little wonder then, that eye-strain takes such a staggering toll today. One-fourth of the young people today suffer from defective vision, three-fourths of all people over fifty suffer from defective vision, and ninety-five per cent of all people over sixty have defective vision.

Eye-strain is one of the penalties that we pay for indoor life. It is not mere chance that glasses are more common among students and all others who read much or do close work than among outdoor men. Indoor life means not only close work with the eyes, but most of all, it implies artificial lighting.

It is not artificial light itself that strains the eyes, but inadequate illumination. Artificial light can be made just as satisfactory for the eyes as daylight. But as found in most homes and in many offices, illumination is far from adequate.

Sometimes the effects of eye-strain appear in the eye itself which becomes red and inflamed and sore. More often the effects appear in some other part of the body. The fatigue of the tiny muscles in the eye may result in a general feeling of weariness, sometimes dizziness, and most frequent of all headaches, nervousness and irritability. Wrinkles may be caused by eye-strain. But by far, the most serious consequence is one that occurs especially in children — near-sightedness.



Eye-strain among children is started mainly in the home, where they work, study, and read under poor lighting.



An excellent light for reading is found in the shade of a tree on a clear, sunny day. Here the reader gets approximately, 1,000 foot-candles of glareless, evenly distributed light.



This man, reading under the light of a 40-watt lamp, is getting about 5 foot-candles of illumination—all concentrated in this small area. Small wonder that he frowns, tires quickly, goes to bed with a headache.



HOW TO OBTAIN EYE COMFORT ILLUMINATION

THE prevalence of inadequate light has been responsible for the Better Light-Better Sight movements which are receiving nation-wide attention, especially in magazines devoted to making the home more comfortable and beautiful. As a result entirely new standards for adequate home illumination have been established:

1. Have enough intensity for the seeing task to be done.
2. Avoid glare—shade all bulbs.
3. Avoid contrasts—have enough light in enough places.
4. Light should be placed so that there will be adequate light on the work without shadows, and so that a healthful and comfortable posture will be natural.

HAVE ENOUGH LIGHT FOR SEEING TASK TO BE DONE

THIS is a matter of footcandle measurement as mentioned on a previous page. It means having lamps of sufficient wattage throughout the home to provide adequate eye comfort intensity.

As a general guide to how much light is needed, science has specified the following quantities of light as a minimum for certain kinds of work.

100 footcandles or more—for very severe and prolonged tasks, such as fine needle work, fine pen work, sewing on dark goods, and discrimination of fine details of low contrast.

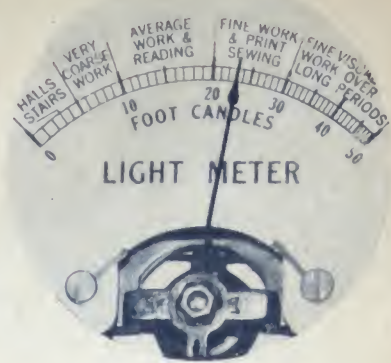
50 to 100 footcandles—for severe and prolonged tasks, such as difficult reading, average sewing and other needle work.

20 to 50 footcandles—for moderately critical and prolonged tasks, such as clerical work, ordinary reading, average sewing and other needle work on light goods.

10 to 20 footcandles—for moderate and prolonged tasks of ordinary reading and sewing.

Under 10 footcandles—unsuitable for critical visual tasks.

To be sure that your lighting intensity is adequate call your electric light company and ask them to send a representative with their Light Meter. With this remarkable new scientific device he can accurately measure the light in every room and every place where you and your family work, read, or play. Don't hesitate to ask for this service. It is free and cheerfully furnished.



AVOID GLARE SHADE ALL BULBS

GLARE is equally harmful to eyes. It is produced by three common causes. First, lighting fixtures with lamps that are not shaded. Second, lighting fixtures with shades that are not deep enough to cover the lamp. Third, lamps that are improperly located so that the bare lamps beneath the shade remain in the range of vision.

Ceiling fixtures with bare lamps should be replaced by more modern indirect or semi-indirect lighting fixtures. Decorative wall bracket fixtures with bare lamps should be shaded. Lamp shades which are not deep enough should be replaced by new ones of adequate dimensions.



Unshaded fixtures produce harsh glaring light which detracts from the most beautifully furnished home.



Children cannot be expected to know the fundamentals of good lighting. You must see to it that their eyes are not injured through glaring or inadequate illumination. Permanent damage can be done to young eyes by improper lighting.



Lights must be properly placed so as to avoid glare. The fact that a lamp is shaded is not assurance that glare can be avoided. The lamp should be hung close to the ceiling so that it is out of the range of vision.

AVOID CONTRASTS BY HAVING ENOUGH LIGHT IN ENOUGH PLACES

A COMMON reading habit, which scientists now point out as detrimental to eyes, is that of reading by a lamp which is the only light source in the room. In other words, the entire room is dark with the exception of one bright spot where the eyes are being used. While you are totally unconscious of it, such a situation demands that the eyes constantly adjust and readjust themselves as they glance back and forth from the printed page. The result is eye-strain.

When this girl looks up from her book her eyes must readjust themselves to the darkness in the rest of the room. This constant readjustment causes eye-strain.

A general rule laid down by scientists is that there should be at least one-tenth the light throughout the entire room as there is for the visual task. The modern and approved systems of lighting provide this illumination automatically, as these systems use the ceiling and the walls of the room as a reflector of light. In other words, the new table and floor lamps employ shades that are open at the top so that a certain amount of light goes to the ceiling and reflects about the room. The new study lamps with which you are most likely familiar are so designed that a large part of the light is directed to the ceiling of the room. Modern ceiling fixtures are designed so that light instead of being directed downward is reflected from the ceiling. Such a system of reflected light assures the proper distribution of illumination and makes certain that there will be no dark spots or bright spots in the room.

Here it is well to point out the important part that the color of walls and ceilings plays in modern illumination. Painted ceilings will substantially increase the illumination in a room when painted a dull white, cream or ivory. Also, lamp shades with inside surfaces of white will provide much more illumination. This subject is covered in more detail in another chapter of this book.

Modern Study Lamps eliminate sharp contrasts by throwing the light up to the ceiling where it is distributed to other parts of the room.

Semi-indirect lighting fixtures provide a soft, glareless light which is well diffused throughout the entire room.



Open top shades with white linings allow a portion of the light to be directed upwards and reflected about the room.

LIGHT DIRECTION MUST BE RIGHT

FLOOR lamps and table lamps should be so located that the visual task is never performed in shadows caused by one's hand or body. Contrary to the general belief that lighting units should be located so that the light comes over the left shoulder, such practice applies only to right-handed people. If you are left-handed the reverse location is the proper one.



Left: Heavy shadows are caused by direct light coming from the wrong direction. Indirect light is diffused and will not produce these shadows.

Right: Here the light is coming from the right direction. There are no annoying shadows on the work.



Better Sight lamps overcome much of the difficulty of light direction by providing evenly diffused light.

Well diffused light, no shadows.



THE LIGHT DIRECTION INDICATOR

Light has three important characteristics—direction, diffusion, and intensity.

Direction is important because improperly directed light causes glare or shadows to fall on your work or reading matter.

Diffusion is important because poorly diffused light causes sharp, black shadows, which are harsh on your eyes.

Here is an easy way to determine whether or not the light in your home is properly directed and distributed. Place a pin directly in the center of the large disk shown below. Keep the book flat on your desk or table in a comfortable reading position. Then note the shadow of the pin falls and compare it with the circles shown on the left.

Evenly distributed light, short shadows in all directions.



Light coming from the left, no shadow on desk.



BAD

Light from behind, shadow of head on work.



Light coming from right, shadow of head on work causes the left hand people.



Light from above, shadow of head on the work.



Lighting for Beauty

LIGHT is nature's own beautifier. The golden sun sinking in the West paints the earth with color, and makes even the drabest spots glow with radiant beauty. The morning sunlight makes trees, grass and flowers more beautiful because of its mystical touch.

The skillful homemaker can now take her cue from nature and use light as a decorative asset. Light in the home can be so designed to bring out the hidden beauty in rugs, draperies, and wall coverings. It can add substantially to the cheer and hospitality of any room when used properly.

The subject of proper home lighting is a lengthy one and in order to make it interesting to you, it will be discussed as it applies to every room in the house.





PART TWO

LIGHTING *the* HOME ROOM *by* ROOM



BEFORE describing the many ways in which light can be used to decorate the individual rooms of the home, it is well to understand the three different methods of lighting; direct lighting, semi-indirect lighting, and totally indirect lighting.

Direct Lighting is a method most often used. Here, most of the light is thrown directly down into the room. However, sharp shadows are formed and the light may be glaring unless the lamp bulbs are properly shaded. The shower fixture, the pendant wall bracket and ordinary table lamps are examples of direct lighting.

Semi-indirect Lighting is a method by which most of the lighting is directed toward the ceiling and part of it downward into the room. The translucent bowl ceiling fixture and the new I. E. S. Better Sight lamps are examples of semi-indirect lighting.

Totally Indirect Lighting provides a light which is easiest on the eyes. All the light is thrown upward to the ceiling where it is reflected down into the room. Shadows are soft, the light is well distributed. The opaque bowl ceiling fixture and the indirect lamp with an opaque bowl are examples of totally indirect lighting.

The modern trend in lighting is to the semi-indirect and totally indirect type. From the standpoint of both eye preservation and beauty, glare and harsh shadows must be avoided. And such conditions are most likely to exist with direct lighting. On the other hand, the softly diffused light of an indirect or semi-indirect fixture provides complete eye comfort and adds to the decoration of the room.

It is important to note that semi-indirect and indirect lighting depend upon the ceilings and the walls for light reflections. So it is important for best effects that the ceiling be painted a dull white, cream or ivory. A touch of pink, yellow, pale blue or green, to blend with the general scheme of the room will not detract from the lighting effect.



Direct Lighting.



Semi-indirect Lighting.



Totally Indirect Lighting.



The Bright, Cheerful Entrance Way

A WELCOME light outside the door is a hospitable greeting to the evening guests. This light should be so located that it floods the steps with illumination.

Waterproof lanterns, singly or in pairs, can be used according to the style of architecture of the home. Also, many homes today are installing a more modern type of built-in lighting. This lighting is concealed behind a frosted glass panel and built into the eaves or porch roof in such a way that the entrance way is flooded and framed with light.

By all means, the house number should be illuminated. This can be accomplished either by locating the house numbers so that they are illuminated by the entrance way lighting, or by the use of new illuminated numbers that have recently been developed.



Does the glow of hospitality greet your guests at the door? Remember that first impressions are lasting.



Lighting the Hall

THE entering guest is welcomed with cheer or gloom, depending upon the hall light. In an average hall, a lantern or shaded candle type fixture is appropriate for a ceiling fixture. On a console table may be placed a lighted ornament or an interesting lamp. Sometimes a pair of torchieres flank a table or a piece of tapestry on the wall.

The upstairs hall must supply light for safety on the stairs. To do this a lantern or enclosing globe of decorating glass may be used. Both hall fixtures should be controlled by separate switches upstairs and down so that they may be turned on and off from either floor. Convenience outlets should be provided in the halls both upstairs and down to permit the use of lamps and electrical appliances.



A pair of dainty boudoir lamps on the vanity in the powder room is a convenience which will be appreciated by every guest.

If your hallway has a decorative mirror be sure to provide it with proper lighting for the convenience of the parting guest.



Making the Living Room More Livable

THE living room is the most important room in the home. And from the standpoint of lighting for decoration it provides the widest range for original ideas.

There are three types of lighting used in the living room; ceiling fixtures, wall brackets, and floor and table lamps. All three of these types of lighting can be pleasingly employed.

CEILING FIXTURES

IT HAS been said that the ceiling fixture is a thing of the past. There is nothing further from the truth. Ceiling fixtures are highly desirable as there are many times when it is desired to flood the entire living room with radiant illumination. Too many living rooms not employing ceiling fixtures are likely to take on the appearance of a lamp shop when maximum illumination is desired.

However, many ceiling fixtures today are not decorations in the modern sense but out-moded extravagances of the past. If such a fixture is provided and it cannot be replaced, it is many times possible to remove some of the unnecessary ornaments which make it look out-of-date. It is also possible many times, after stripping these fixtures, to add more modern shades and achieve glareless, modern illumination.

The modern ceiling fixture is available in a wide variety of designs. As previously mentioned, they employ in most every case indirect or semi-indirect lighting. These fixtures are not only decorative in themselves but produce soft, glowing illumination which adds substantially to the color of the room decorations.

The most modern of all ceiling illuminations is that provided by built-in cove or panel lighting. This lighting can be concealed in a panel around the molding, or it can be a decorated frosted glass panel built-in or suspended from the center of the ceiling. Both types provide novel and delightful lighting effects.



Many a home is labeled "old fashioned" because of its lighting fixtures. Up-to-date fixtures can change the entire appearance of a room and make it attractive to look at and a comfortable place for the whole family to work, read, or play.





LEFT:

Under this type of illumination not more than two persons at each table could possibly see their cards. Many a bridge game becomes tiresome and uninteresting because the lighting is straining the eyes of the players.

BELOW:

Notice how much more attractively and comfortably lighted is the bridge table employing modern illumination. Now every player can see his cards with ease and comfort.



Below: Table lamps are not sufficient to provide general illumination. In this up-to-date room the general lighting is provided by lamps concealed in a built-in cove at both ends of the room.



WALL BRACKETS

WALL brackets should be considered for their decorative value only, and not as a source of light when reading, working or entertaining. The most important thing to remember about these lighting fixtures is that, by all means, the lamp bulbs must be shaded.

A wall bracket serves two purposes in decoration. First, to attract attention to a particular grouping, as for instance, a pair of brackets over a fireplace makes a perfect setting for an ancestral oil painting.

Second, a bracket may furnish a light spot at a place where you need it. However, the most discouraging thing about wall brackets is that, in most cases, they are located just where they are not needed. And many times there are spots about the room where a wall bracket would be an attractive addition. For instance, in a corner of the room, or beside, or beneath a mirror.

An inexpensive way is now provided for securing such types of fixtures. A new pin-it-up lighting fixture is now available in many attractive designs, which can be hung upon the wall by a tack, the same as a picture. Many homes are employing this type of fixture with gratifying success.



Note the shades which have been placed on these wall brackets to prevent glare and to add attractiveness to the picture.



LEFT:

The Shield type of shade is very practical for use on wall brackets.

The Pin-It-Up lamp is a smart and efficient lighting unit. It can be placed practically anywhere. Available in Direct, Semi-indirect, and Indirect types.



DECORATIVE HINTS

DECORATIVE home lighting recipes are full of interesting lighting variations that give full expression to any lighting temperament. In new homes and old homes, panels of glass properly applied may harmonize with any decorative scheme. These glass panels can be used to give the living room character and novelty. For instance, panels built-in at each end of the davenport provide a perfect setting for this piece of furniture. Glass boxes made to fit into the four corners of the room will provide an up-to-date appearance to any room. Intriguing picture illumination can be obtained by placing a small tubular lamp in a trough countersunk in the top of the mantel.

Interesting effects can be obtained through use of the new tubular and Lumiline lamps which are available in many colors. When placed on top of the secretary or china cabinet, or back of a chest of drawers to light up a picture or wall hanging they add distinction to any room. When installed over windows and over the doors of the room, and concealed by a small moulding, the effect is smart and modern.

Place a lighted lamp behind your ship's model and other mantel decorations.



Lumiline and Tubular Mazda lamps are especially suitable for built-in lighting applications.



A light in the corner cabinet puts a choice piece of pottery in the spotlight.



Built-in lighting at the casement windows creates a pleasing effect when seen from either inside or out.

Note the lighting at the side of the davenport, and on the mantel to floodlight the picture.



FLOOR AND TABLE LAMPS

TO MEET the individual needs of every member of the family, plenty of floor and table lamps are needed in the living room. This lighting serves both the utilitarian purpose of providing proper light for both work and reading, and also the decorative purpose of bringing to the room a restful, cheerful, and welcome atmosphere.

The lamp shades of these lighting fixtures are all important in both the decorative and utilitarian lighting effects achieved. Of course, the exterior of the shade should be of a color to harmonize with the rest of the room. The modern lamp shade is one with a white lining and open at the top. Remarkable changes in a room can be achieved by installing new lamp shades on old lamps that conform to these new standards.

The most modern of all floor and table lamps is the new I. E. S. Better Sight lamp. These lamps not only cast sufficient illumination downward, but cast enough illumination to the ceiling to produce a delightful effect throughout the room. This is the type of lamp which is strongly recommended for the bridge table. The old so-called "bridge" lamp should never be used for bridge. It is unfortunate that the game started its climb to popularity at the same time this particular lamp was introduced. The lamp was named by an engineer because the arm bridges the light over to the space where you want it, not because it was recommended especially for bridge playing.

Whenever possible, the davenport should be illuminated by adequate light at both ends.



Care should be taken that desk lamps are equipped with Mazda lamps of sufficient wattage to provide adequate illumination.



Where a lamp is used for decoration, it should be used for its decorative value only and not for reading, sewing, or other severe visual tasks.

The Better Sight lamps were designed by the Illuminating Engineering Society to meet all of the requirements for proper eye-sight conservation. These lamps are now built by many manufacturers and if they bear the tag of the I. E. S. they are certified to meet these requirements.

Only recently the Mazda Lamp manufacturers have made available a new and interesting light source for indirect portable lamps. These new Mazda lamps contain two filaments which will provide three different intensities from one lamp. The newest is the 50 watt, 100 watt and 150 watt lamp for use in the new Better Sight Lamps. The other lamp most suited to the home provides intensities of 100 watts, 200 watts and 300 watts for use in indirect and semi-indirect floor lamps.

It is certainly true that a high level of illumination is not always desirable in the room, especially when no critical visual tasks are being performed. Here is where the true convenience of these new three-light lamps is realized. When the family is gathered for a quiet evening of rest and relaxation, lower wattages may be used. If a bridge game is suggested, or if reading is desired, a flick of a switch immediately raises the level of illumination.

TOO OFTEN as daylight fades in the evening the gradual change in illumination is not noticed. Instead the head goes closer to the book or paper or sewing; the eyes are strained in a hopeless effort to cope with the dimmed light. Twilight, dim light, marks the beginning of the danger hour for the eyes at close work. Turn on the lights early — especially for the child. Light is cheaper than sight.



This tag certifies that the Better Sight lamp has the approval of the Illuminating Engineering Society.



You owe it to your children to provide them with adequate illumination.



Better Sight lamps are available in many types and sizes to harmonize with your furnishings.



Lighted ornaments are becoming increasingly popular.



On dull, rainy days built-in lighting of this type will brighten up the sun room.

Another type of lamp which can be used to add to the decorative qualities of the room is the modern decorative floor lamp. This lamp is usually a totally indirect lamp of the torchiere type and its purpose is not only a utilitarian one but also one of room decoration.

Light ornaments make interesting bits of decoration in any room. Different colored lamps may be used in them at different times of the year. In winter, amber will give a warm glowing light, while in the summer blue or green will give an appearance of coolness. Another interesting way to obtain tinted light is by the use of tinted glass discs placed over the reflector of an indirect lamp.



With the ceiling fixture, the wall bracket and plenty of lamps, the homemaker is able to light her living room for any occasion by making different lighting combinations. Just as in the theatre light is used to create the mood of a scene, so in the home it produces a soft gentle light for a cup of tea, or efficient light for study by means of a desk lamp, or a bright cheery light for a party by means of a ceiling fixture and wall brackets. Remember that light creates the mood for the setting.



Lighting the Sun Porch

SINCE the sun porch usually has so many windows, it is desirable to use a ceiling fixture rather than wall brackets. It is interesting to use a fixture that has a suggestion of leaves or flowers in the design. Whether it be a pendant fixture or close-to-the-ceiling type, be sure it is properly shaded. Floor lamps and table lamps are essential for reading and sewing and for decorative purposes just as in the living room.

Convenience outlets should be placed for lamps, electrical toys, and appliances. The ceiling unit should be controlled by a switch at the doorway.



An End to Dull Dinners

IT is a fallacy to believe that the only intensity of light needed in the dining room is that which will enable the diner to note the difference between the peas and mashed potatoes. While scientifically correct intensity is not an important factor in the dining room lighting, it is essential that the room be bright and cheery. Nothing will add more to the enjoyment of a meal or the decoration of this room than ample, pleasing lighting.

The dining room silver, the snowy white linens, the attractive chinaware, can all be made to take on an inviting gleam and sparkle by proper illumination.

There are several methods of lighting the dining room correctly. The first is to use the new indirect lighting fixtures which throw a soft, shadowless light over the entire room. The elegant crystal chandeliers are still in vogue but be sure that the lamps are covered by tiny shades so that they will not glare into guests' eyes. Wall brackets, too, can be used if the light is properly shaded, but they should be used in conjunction with candles on the table. Or in place of wall brackets, cove lighting can be attractively employed.

In larger rooms plaster or metal coves can easily be mounted around the room about 18 or 24 inches from the ceiling. However, this type of lighting should not be used if the room is not of sufficient size to allow a spacing of 18 inches from cove to ceiling. White or colored Lumiline or tubular lamps may be installed in the coves and many interesting effects can be accomplished.

The new semi-indirect fixtures produce a soft, evenly distributed light which makes the whole room bright and cheery.



Modern lighting does not eliminate the use of candles. A table set with wax candles or electric candles makes a party out of a meal for any girl, big or little. Candles may glow on the dinner table well below the lighting fixture.



Be sure that lamps in wall brackets are shaded. Glaring light detracts from the beauty of any room.



Another novel effect is obtained by installing colored lamps behind the drapes or venetian blinds. Moonlight, sunlight, and other effects can be had by properly applied colored lighting.

Come Out of the Kitchen, Mary Anne



Here is a kitchen equipped with every modern convenience. Note the lights that have been built-in over the stove, work table and sink. The center fixture is of the semi-indirect type.

THE kitchen is the workshop of the home. So it is vitally important that this room be made as cheery and comfortable as possible. Good lighting accomplishes this and helps to speed up kitchen tasks.

The kitchen should have plenty of light everywhere. It should be so arranged that a worker, regardless of where the work is being done, is never working in her own shadow.

The enclosed glass globe has been standard for kitchen lighting, but recently more approved forms have been developed. The most modern kitchens have totally indirect lighting coming either from the center fixture or from concealed lighting around the edge of the room, or spotted locally where the various tasks are accomplished.

Built-in lighting in dish closets and over the sink and range are also interesting applications that will be found in the most up-to-date homes throughout the country. For good kitchen lighting, the walls and ceilings should be of a light shade, preferably a dull white, cream, or ivory so that glaring reflections will be eliminated. It is best to have the ceiling fixture controlled by a switch at the door. Whenever work is done facing the wall, as at the sink or range, wall brackets should be placed for best auxiliary light.

Lumiline lamps are ideally suited for installing over the range, the sink and the work table.





Here is a practical method of providing local light over the range.



The newest type ranges have built-in lamps, but fixtures can be obtained for providing local light on your present equipment.



It is most important to have good lighting over the sink to avoid working in your own shadow.



Here is an inexpensive lighting arrangement which will add immeasurably to your comfort.

Built-in cupboard lighting is very practical and convenient.



Right: If the fixture in the breakfast nook is installed close to the ceiling it will be out of the line of vision and will distribute the light more evenly.

In the breakfast nook the outlets should be handy to the table to accommodate toaster, percolator or waffle iron.



Modernized lighting is inexpensive to install and pays for itself many times through increased convenience, satisfaction, and eye comfort.



It is important to have plenty of convenience outlets throughout the kitchen. Do not place these outlets on the baseboard, but rather have them built into the wall about four feet from the floor; this makes it much more convenient to use electrical appliances. In the pantry, a lamp shaded with an oval glass reflector should be hung so as to light the shelves. In many cases it is desirable to have lights with a simple reflector installed inside of the cupboard and shelves.

For the breakfast alcove, a decorative enclosed glass pendant fixture or pendant light with a bright colored shade is very satisfactory. Here it is possible to work out a very novel effect with appropriately decorated wall brackets.

At the back door a simple lantern is needed. The only requirement of this lantern is that it should be waterproof and should be designed in such a way that it will throw ample light over the steps. It should be controlled by a switch at the door.



Convenience outlets should be located within easy reach. Toasters, irons, electric mixers, etc., need outlets placed waist-high over the tables and shelves where they are used. Baseboard outlets are almost always beyond the reach of the extension cord and are not convenient to get to.



Below:

A lamp with RLM reflector placed on the side of the house floodlights both the garage and the driveway.





Lighting the Bedroom

THE women of America are turning into a race of furniture movers. This is particularly true when bedrooms are considered. Every woman likes to change the arrangement of her furniture frequently. Too often, however, furniture arrangements are limited by the lighting fixtures. This is particularly true if the room is lighted only with wall brackets. Therefore, every bedroom should have a central ceiling fixture.

There are many pleasing types of fixtures which fit well into the bedroom. The enclosed glass globe is popular in modern rooms and the shower type still maintains its appeal for many. If a shower type fixture is installed, try changing the shade to match the draperies in the room. Do not use colored lights in the fixture. In addition to the center fixture, if there are plenty of convenience outlets in the room, it will be easy to put lamps on the vanity or a pair of electric candlesticks on the dresser.



Left: The dressing table needs two lamps to provide even light on both sides of the face.

Below: This modern dressing table has built-in lighting fixtures on three sides of the mirror.

Below: Vanity lamps do not provide good general illumination. A ceiling fixture of the semi-indirect type is essential.





Here is a room before and after it was properly lighted. The direct type of ceiling fixture produced heavy shadows and a spotty, uneven distribution of light. When relighted with one of the new semi-indirect fixtures, the light is glareless and even.



Here is an interesting application of modern bedroom lighting. Modern lighting does not necessarily require expensive equipment.

Lumiline or Tubular lamps installed along the top of the window spread a generous amount of illumination over the entire room.





The chaise longue requires individual lighting. A bridge lamp with a dainty shade will furnish good light when needed.

For the easy chair or chaise longue, provide a bridge lamp with decorative shade or one of the new low floor lamps. If reading in bed is popular, be sure there is adequate light. Most bed lamps are hopelessly inadequate. Try placing one of the new student lamps on a table alongside the bed, or a totally indirect lamp which will throw its light up to the ceiling and then reflected down to the printed page with an even shadowless light.

A lamp placed under the bed in the baseboard will flood the floor in the room with light and make it easier to find the way around after dark.

One of the greatest of all conveniences is a light in the closet. Usually this light is placed inside and just above the door, so that the light is thrown back on the clothes. It may be controlled by an automatic switch in the door or by a pull-chain. The wattage of the lamp depends upon the size of the closet, but it is wise to have adequate light. The amount of time that these lamps are used is so short that the difference in consumption of electricity is negligible.



A lighting fixture attached under the bed is courtesy to your "roommate," for with it either of you can see to move about without throwing light in the face of the sleeper. For children, and in times of illness, it is invaluable.



Most bed lamps are totally inadequate for reading purposes. If you enjoy reading in bed try one of the new Better Light-Better Sight lamps, shown here.



Closet lighting is not only a convenience but a safety measure also. Many a fire has been started by someone using lighted matches in a closet.

Lighting the Child's Room

WHEN designing decorative lighting for the child's room, the fact should never be overlooked that a growing child has growing eyes. The desire for novel decorative effects should in no way interfere with proper scientific lighting in this all-important room. The most helpful light, from the standpoint of eyesight, is the indirect ceiling fixture, or one that shades the light equally on all sides. For an unusual decorative effect, and one that is sure to delight the hearts of children, lamps designed with faces of ducks, elephants, etc., are obtainable. For the sake of practicality, it is wise to screw the lamps to the table or desk.

A vitally important and most commonly overlooked item of lighting in the child's room is the necessity for a small wattage lamp built into the baseboard near the child's bed. This light is so handy when one needs to enter the room at night. While it provides sufficient light for the immediate purpose, it will not disturb the child's slumber.

Convenience outlets are needed for electrical toys and lamps. Both the ceiling fixtures and the built-in baseboard lamp should be controlled by a switch at the door.



Young eyes are easily injured by glaring light and sharp contrasts. Always provide well-diffused general lighting in the child's room.



A light on the baseboard under the bed will enable you to see your way about the room without disturbing the child. This light should be controlled from a switch at the door.

Right—Totally indirect lighting is best for children. Pin-It-Up lights of this type can be easily placed at any point in the room.





Lighting the Bathroom

THERE is no room in the home where it is more essential to have lighting of high intensities than in the bathroom. Here the utilitarian value of the lighting should be considered far above the decorative quality.

An enclosing globe using a high wattage lamp should be provided at the ceiling. Lighting on both sides of the bathroom mirror is essential. These lights should be shaded with frosted glass. Tubular lamps of the frosted type are permissible.

The most up-to-date lighting of bathroom mirrors is accomplished by framing the mirror on top and two sides with built-in panels having a frosted glass covering. Many women find it difficult to make up properly for daytime under ordinary interior lighting. With this type of fixture it is possible to produce light approaching daylight color by using both Inside Frosted and Daylight Blue Mazda Lamps.

Another novel idea which is meeting favor is the installation of a sun or health lamp in a built-in reflector over the tub or shower bath. Or if this is not possible, a convenience outlet placed at the right of the basin, four feet from the floor, will be found convenient for the use of the sun lamp and other electrical appliances. The ceiling fixture should be controlled by a switch at the door.



*It's hard to get a good shave when one side of the face is in a shadow. Lights on both sides of the mirror provide even, shadowless light—**RESULT: A Better-Shaved Hubby!***

Even though your bathroom is small, you can have good lighting. This type approaches the ideal because it gives light on three sides of the mirror.



The light in the shower should be enclosed in a waterproof fixture and controlled by a switch located in a place where it cannot be reached from the shower.



Cleverly located lighting in the built-in vanity provides good light for Milady's Toilette.



Modern lighting combines with modern decoration in the luxurious bathroom.



Lighting the Basement



There is no reason why the furnace room should be a dungeon when it cost so little to install a conveniently located light.



Small basement windows do not admit enough light to the laundry. A lighting fixture over the ironer is a necessity.

The "master mechanic" will find work much easier if the workshop is correctly lighted.

THE basement is one section of the house which usually does not receive the lighting attention it deserves. Ample light should be provided throughout the basement for every task which is performed in this part of the house. General light may be provided by a fixture at the ceiling. This light, which often lights the stairs, should be controlled by a switch at the head of the stairs. A pilot light in this switch will show when the light is left burning. The furnace and fruit closet each need a separate light which may be controlled by a pull-chain. The laundry section requires a ceiling light and local lighting is needed at the wash tubs and ironers. Convenience outlets for appliances should also be provided.

If the man of the house likes to "tinker," his work bench should be properly lighted. An RLM Reflector mounted at the ceiling will direct the light down for the close work, and a convenience outlet on the wall over the bench permits the use of electrical tools.

When the basement boasts a recreation room, the close-to-the-ceiling type of fixtures should be used as well as floor lamps. When wall brackets are provided, they should be properly shaded. Convenience outlets are necessary for the reading lamps. Built-in lighting is especially desirable and applicable to the recreation room. When planning such a room, be sure to consider this type of lighting.





Above—This type of built-in lighting is particularly good for low ceilinged rooms, as the fixtures can be recessed between overhead beams.

In addition to generous overhead lighting, the laundry requires local lighting over the tubs and ironing board.



You can't play good ping pong if the light is glaring in your eyes. An indirect fixture mounted high over the table will speed up the game.



Have at least two overhead lights in the garage, one directly over the engine hood of the car, the other over the work bench. A separate outlet is needed for the trouble light.

Lighting the Garage

TODAY, many garages are constructed without provision for some type of an exterior light. Such a light is absolutely necessary, both from a convenience and safety standpoint. The exterior garage light can take the form of a waterproof lantern, or it can be an ordinary RLM Reflector. It should be controlled by a switch inside the doorway of the garage, and by another inside the most convenient entrance to the house.

For the most efficient and satisfactory interior garage lighting, an RLM Dome Reflector should be placed over the usual position of the car engine. There should be provisions for a work bench light, and this light should be the same as recommended for the basement work bench. Convenience outlets are needed for a trouble lamp and battery charger.



Lighting the Garden

ILLUMINATED gardens are coming more and more into popular favor. The principal points of beauty during the day can be transformed into spectacles at night by illumination from small floodlight projectors carefully concealed about the garden. Individual evergreens and spreading groups of shrubbery conceal the light sources by day and night.

As a rule, clear white light is most desirable because vivid colors in lighting tend to change the natural coloring of flowers. Pale green is often used for lighting foliage.

Every garden has its own individuality, therefore, definite lighting practices cannot be recommended that will apply generally to all gardens. The following are some of the most popular garden lighting applications:

Lighting pathways and steps for safety and beauty.

Lighting the garden wall or fence so that vines and shrubs will stand out in silhouette.

Transforming small fountains, lily pools, and rockeries into clear or colored crystals by placing the light sources beneath the water.

Spot-lighting small statuary in the garden to emphasize their lines after dark.

Lighting shrubs or trees bordering on ponds or lakes so that their reflection in the water takes on a silver sheen.

Lighted arches, pergolas, and summer houses lend individuality.

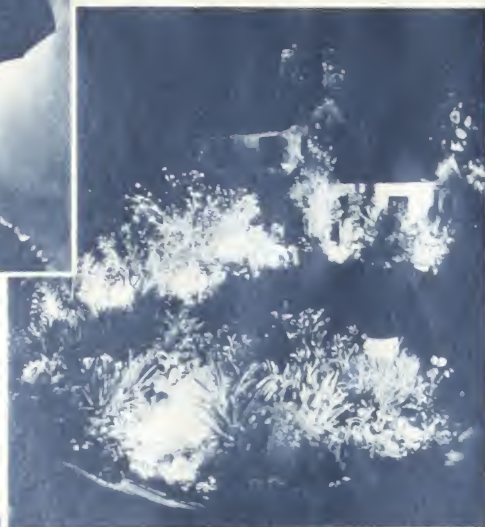




Garden Pools are transferred into shimmering crystal by the addition of an inexpensive underwater lighting unit. The unit shown here is made in the form of a Lily Pad and light is attached underneath.



Inexpensive Garden Lighting fixtures are now available.



Even the modest garden is enhanced by the beauty of light at night.



A simple, home-made lantern suspended on a bamboo pole makes the pool a beauty spot at night.



By directing light against the garden wall, shrubbery stands out in striking silhouette.



PART THREE

CELEBRATING *the* HOLIDAYS *with* LIGHT

DURING the Christmas Holiday Season, homes and stores alike are resplendent with decorative light, inside and out. However, there are other holiday seasons throughout the year that offer the modern hostess an unusual opportunity to make use of light for decoration. The party table in particular lends itself to novel treatment.

Table Decorations for Parties

DECORATING the table with light is accomplished almost entirely with strings of small lamps familiarly known as Christmas tree strings. Some of the older strings of lights burn eight tiny series lamps. If one of the lamps burns out or becomes loose in its socket the entire string goes out. The newer strings are more desirable. They burn $7\frac{1}{2}$ -watt 110-120 volt lamps. On this newer string if one lamp burns out or is not used, the rest of the lamps remain lighted. This lamp is the one used in most of the decorations described in this chapter.

If the sockets come too close together in the decorative scheme every other socket may be used and the empty ones hidden with leaves. If more than seven place cards are used a second string will be needed, or, if only one or two additional lights are necessary, intermediate sockets may be secured and wired with a plug placed on one end. When making crepe paper flowers with bulbs as centers, always fasten the petals to the sockets. Do not allow the petals to touch the lamp itself. A double socket outlet placed in the center of the table makes it necessary to have only one cord running from a convenience outlet to the table. When lamps are so used that they may touch the table top, care should be taken that padding is placed between the lamps and the surface of the table.



This modernistic Christmas decoration is made by white-washing a small branch, on which silver stars and tinsel icicles have been hung. An unusual lighting effect has been achieved by placing colored lamps in the bowl at the bottom.



This snow man is made by stretching white crepe paper over a wire frame. It is illuminated by placing a white lamp inside.



NEW YEAR'S DAY

A NOVEL table decoration for the New Year's table can be easily achieved by placing an illuminated clock in the center of the table and a lighted figure beside a miniature lamp post at each place to hold the place card.

To make this centerpiece, cover a pasteboard box about 8 inches square with black paper. Cut numbers out of the box top, to make it look like the face of a clock. Paste green crepe paper, as a lining, inside the face of the clock. Inside the clock place a socket containing a white lamp. The light will shine through the green numbers cut out of the dial of the clock. With silver paint, indicate the hands and outline the numbers. Stand a kewpie doll, representing the New Year on the up-turned illuminated dial of the clock.

Next proceed to the individual places. Two of the sockets of a string of lamps are used. Bind one socket with spool wire to a small wooden stick about 11 inches tall, to make the lamp post. Wrap with black crepe paper and mount on a small square of wood or a flat cake of soap. The lamp in the second socket forms the head of the figure. Paint a face on the bulb, using water colors. Twist a piece of stiff wire around the socket and fasten it down into the stand for a body. Twist a piece of wire around the socket to form arms, and another lower down, to form legs. Dress the stick figure with a tuxedo suit and top hat made of black crepe paper. Cover the wires leading to the center with cotton and artificial snow.



ENGAGEMENTS and WEDDINGS

A VERY novel and attractive table for an engagement party can be accomplished by placing an illuminated ring in the center of the table. To make this ring, cut out a large cardboard ring and fasten it together with a strip of adhesive tape. Use a white lamp for the diamond. Bind the wire from this lamp to the cardboard ring, with spool wire. Cover the ring with strips of gold paper. Cut prongs from gold paper and paste them on the socket of the lamp, extending them up on the lamp, just like prongs on a ring. In the center of the engagement ring place a miniature bride and groom, and a trellis covered with lighted flowers made like the poinsettias on page 44.

For the wedding party, a bell of white crepe paper may be hung over the dining room table, or from the ceiling fixture.



To make the bell, first secure a bell-shaped wire frame. Inside the bell at the top, attach a string of white lamps. Cover the frame, both inside and out, with white crepe paper. Wind row upon row of flower petals around the frame until entirely covered.

Place cards resembling a smaller bell are suggested for each plate. Cut a strip of white crepe paper about 3 inches wide and $5\frac{1}{2}$ inches long. Put it around a socket, paste the ends together, and fasten it to the top of the socket with spool wire. Stretch the lower edge of the paper between thumb and forefinger so that the bell will flare just below the bulb. Sometimes a double thickness of paper is used to soften the light. Wrap the wires with white paper and support the bell on a nut cup. Tie a bow of maline ribbon just above the socket.



In this attractive table decoration, white lamps form the centers of the flowers.

FOURTH of JULY

HERE'S an opportunity to decorate both inside and out. For the out-of-doors, trees and shrubbery may be trimmed with strings of red, white and blue lamps. Red, white and blue lighted balloons may also be used as festoons.

Indoors, *luminous firecrackers* may be used on the table. To make them, fasten a socket to a round piece of wood. Place a clear tubular lamp in the socket and slip a jacket of red paper, held together by fasteners, over it to form the body of the firecracker. In the top put a round piece of cardboard that has in it a piece of string for the fuse.



THANKSGIVING

AN attractive light decoration for the Thanksgiving table can be simply and easily prepared. Place a bowl in the center of the table. If the glass or china is very thin it is wise to take the precaution of placing a bit of asbestos or thick piece of cloth in the bottom of the bowl.

On this, place a string of white lamps and connect it to a convenience outlet. Cover these lamps with translucent fruit such as grapes or plums, combined with other pieces of opaque fruit.

Another decorative Thanksgiving table can be designed by placing a bouquet of chrysanthemums in the center of the table. Encircle the flower vase with a string of red, amber and yellow lamps and connect it to a convenience outlet. Cover the string of light with autumn leaves. The resulting color combination is delightful.





CHRISTMAS

LIGHT has always been the symbol of Christmas. During this festive season the cheeriness and friendliness in the air becomes contagious as each tiny light shines out its message. And at no other time of the year is there so great an opportunity to dress up inside and outside with colorful, artistic light decorations. Here are a few suggestions for attractive light decorations.

FOR THE TABLE

A SILVER box of red poinsettias with hearts of light makes an attractive decoration for the Christmas table. To make the box, crush silver paper hard between the hands then straighten it out. Paste it on the outside of a box and it will give a crinkled effect. To make the poinsettias, first wind a string of red lamps with kid wire to form the stem, then cut petals out of red crepe paper and paste the first four petals around the socket. Bind the remaining rows of petals to the socket with spool wire. Make leaves of doubled silver paper with a small wire between the two thicknesses to give them body. Wrap the stems with silver paper, adding the silver leaves as you wrap. Cut a small circular piece out of the top of the box and into the hole thus made, wedge the poinsettias so that the turned up ends of the stems are firmly held by the side of the box.



To make the individual boxes, remove the cover from a small cardboard box painted red or made of red cardboard. Place a red lamp inside, with the wire coming out through the back rather than the bottom. Cover the open front with a thin Christmas card of parchment paper, pasting the edges back over the sides of the box.



FOR THE HOME

ARTIFICIAL holly wreaths or red chenille wreaths equipped with lamps may be secured for decorating the windows throughout the home.

Candeliers consisting of a varied number of electric candles of graduated sizes may be placed in windows, or single electric candles may be placed in each window of the house.

A device called a flasher may be used to make the strings of lights twinkle. Frames made in Christmas shapes, such as flowers, diamonds, circles, may be wired with strings of lights and placed on the chimney or roof of a house.

FOR OUT-OF-DOORS

MANY novel effects can be achieved here. For instance, intertwine strings of lights with laurel over windows and doorways and under the eaves of the house. The strings contain seven, ten, twenty-five, fifty or one hundred lamps. The lamps may be spaced twelve to eighteen inches apart. For a change, use lamps of all one color. For example, all blue, all clear, or all amber. If there are no evergreen trees in the garden, a cut Christmas tree may be placed in a stand on the porch. One way of decorating it is to spray it with white lacquer and floodlight it with color.

Colored lamps placed in shrubbery, so that light shines through branches from the interior, are very effective. Strings of colored lamps spaced about eighteen inches apart may be placed along the hedges.

Trees may be floodlighted without detracting from the effect of the lighted strings of lamps.



This huge snowball is made by covering a form with crinkled white crepe paper. Silver paper stars form reflectors for the lamps at the top and colored lamps are used at each point of the star-shaped base.





PART FOUR

The FRAMEWORK of HOME LIGHTING

JUST as any house must be built upon a frame work of wood or steel, the lighting within the house must have a frame work which is equally adequate. This frame work is the wiring and, while the subject of wiring may not be intriguing to the average woman, it is important that she has a general understanding of the part it plays in providing the home with electrical servants.

Adequate home lighting should provide for: (a) general lighting in all rooms in the house. (b) local lighting for close work such as reading, sewing, et cetera. (c) convenience outlets for utilitarian and decorative lighting, radio, fan, and vacuum cleaner. (d) special outlets for heavy duty appliances. (e) switches that enable one to have light upon entering a room and to turn off the light upon leaving.

In building a new home the wiring plan should receive personal supervision to be sure that it is adequate not only for present needs but for future expansion. The most important features to note are: (1) that there are enough lighting outlets and convenience outlets in enough places; (2) that the size of wire used provides sufficient capacity to take care of the maximum electrical load that will be placed upon it; (3) that there are enough electrical circuits of sufficient capacity to take care of all these.

The matter of providing enough lighting and convenience outlets is readily appreciated. However, the importance of the wire size and wiring circuit must be explained.





Power lines feed electricity into the basement of the house. There it enters the meter where the amount used is recorded. It passes on to the fuse box where the main line is split up into individual circuits, each with its own fuse.

The ELECTRICAL CIRCUITS

ELECTRICITY is wired to the home from the Electric Company's lines to a fuse box in the basement. Each individual lighting outlet or convenience outlet throughout the home is not connected directly to this fuse box. Instead, circuits are run from this fuse box throughout the home and to each individual circuit is attached a certain number of the home's electrical outlets.

Each room should be supplied by two circuits. This does not mean that there must be twice as many circuits as there are rooms for one circuit usually services several rooms. However, with the wiring arranged so that two different circuits supply each room, when a fuse blows out only part of the lighting system in that room will be affected. Each circuit should be marked on the inside of the cover of the fuse box, to show the rooms controlled by it. Then, when a fuse burns out it is easy to replace.

The FUSE

THE fuse is a safeguard. When a circuit is overloaded by connecting more wattage to it than it was intended to carry, there is a possibility of the wires becoming overheated to the point of fire.

In order to avoid this, a device called a fuse is used. When the circuit is overloaded, the heat melts the soft metal in the fuse. This breaks the circuit and cuts off the electricity before the main wires can overheat and cause a fire. It is advisable to have extra fuses in the house so that when a fuse burns out a new one of the correct size may be screwed in again. A 15 ampere fuse will answer the needs of the average home.

Instead of the commonly used fuse box, a new circuit-breaking device which eliminates fuses may be used. This consists of a box containing a number of switches controlling the various circuits of the house. When a circuit becomes overloaded, the switch controlling that circuit automatically opens before any harm is done. After removing the cause of the overloading it is necessary only to reset the switch to resume service.



OUTLETS

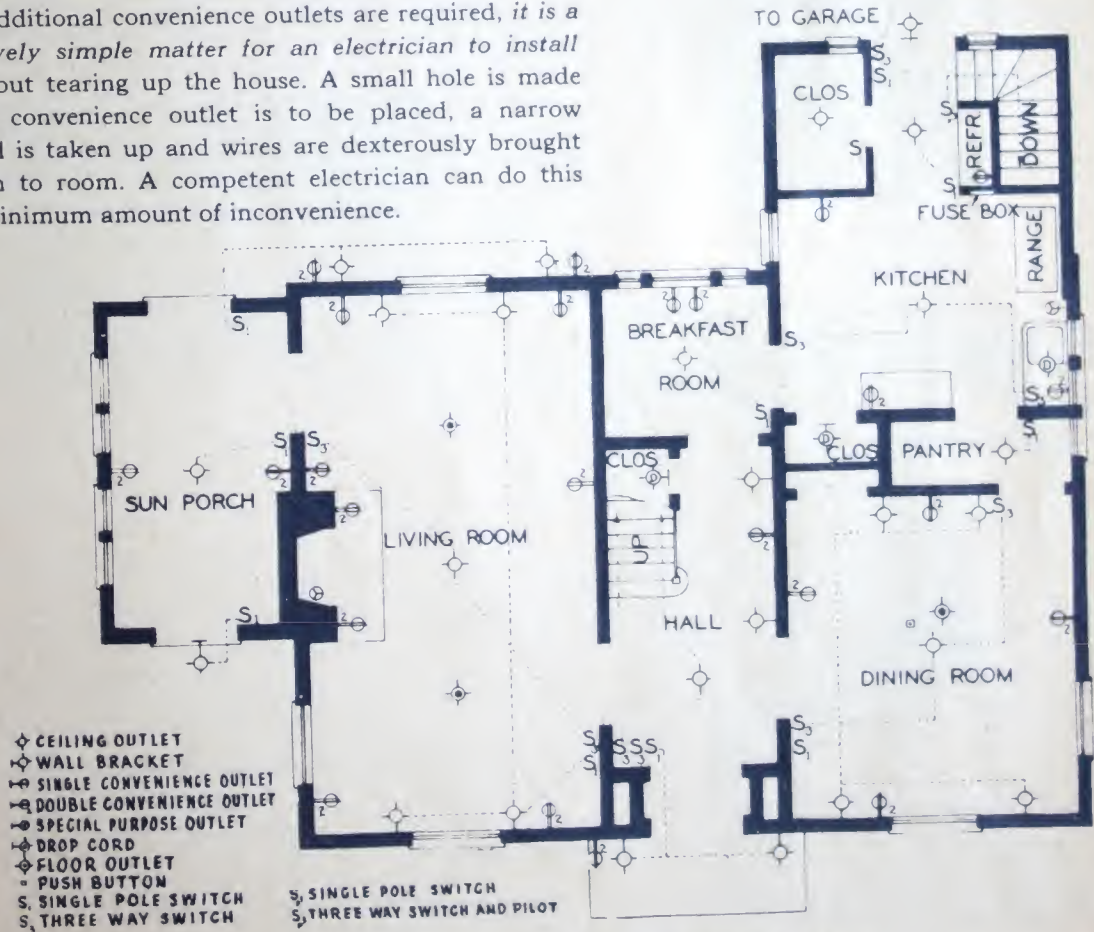
EVERY room of the house should be wired for a ceiling fixture, even if it is not installed. The fixture outlet may be needed later and in the meantime may be concealed by a small plate. There should be plenty of convenience outlets so that lamps and appliances can be properly attached without unsightly cord dangling from fixtures. Duplex convenience outlets give double the usefulness of single ones and cost very little more. Since cords for lamps and appliances are usually 6 feet long, duplex convenience outlets should be placed every 12 feet around a room.

Floor outlets are important. One should be placed under the dining room table and one or two in the living room. A duplex convenience outlet fastened to, or placed on, the dining table is useful for appliances.

Where additional convenience outlets are required, it is a comparatively simple matter for an electrician to install more without tearing up the house. A small hole is made where the convenience outlet is to be placed, a narrow floor board is taken up and wires are dexterously brought from room to room. A competent electrician can do this with the minimum amount of inconvenience.



New wiring is comparatively inexpensive and quite easy to add. An electrician can bring your wiring up-to-date without soiling the rugs, marring the walls or otherwise throwing the household into an upheaval.



- ⊕ CEILING OUTLET
- ⊕ WALL BRACKET
- ⊕ SINGLE CONVENIENCE OUTLET
- ⊕ DOUBLE CONVENIENCE OUTLET
- ⊕ SPECIAL PURPOSE OUTLET
- ⊕ DROP CORD
- ⊕ FLOOR OUTLET
- ⊕ PUSH BUTTON
- S, SINGLE POLE SWITCH
- S, THREE WAY SWITCH AND PILOT

Too often false economy has reduced the original wiring plans of a house, for, in building, wiring is one of the last expenditures and inclination is to make up on cheap wiring what you have run over on foundations. Adding to your wiring will modernize your home more completely for less money than any other improvement. It will increase the livability as well as the market value of your house.



Toggle switches.



Toggle switch with pilot light for outlet.



When installing new wiring, it will pay you to insist on No. 12 or No. 10 wire. These larger sizes will deliver full voltage to several outlets on each circuit.

SWITCHES

THE toggle switch is now commonly used. Switch plates are made in many different finishes, such as bronze, silver, plate glass, walnut, mahogany, tile. Switches of bakelite, painted to match the wall, are the least conspicuous.

Switches should never be placed behind a door, but always on the lock side, 4 feet from the floor. Ceiling fixtures (and sometimes wall brackets) should be controlled by wall switches. Some of the convenience outlets in a room may be controlled by a switch so that a trip from lamp to lamp all the way around a room is not necessary. A *luminous ball* on the end of a pull-chain is a convenience in a closet. Sometimes an *automatic door switch* is used in closets, the light being turned on and off with the opening and shutting of the door. A *switch that contains a pilot light* should be used for the basement and attic lights to tell when the light is left burning.

Any room or hallway that has two main entrances more than 15 feet apart should have a switch at each entrance. These are called *three-way switches*. They are particularly convenient for lighting stairways, hallways, and garages. As a burglar protection, some homes have a *master's switch* in the bedroom so that, without getting up at night, the entire house may be flooded with light. Others have an *incandescent lamp with reflector placed outside*, under the eaves of the house. It is controlled by a switch in the bedroom and floodlights the grounds at night.

SIZE of WIRE

JUST as there are many sizes of pipe, there are many sizes of wire. And just as a certain size pipe can carry only a certain amount of water, so can a definite size of wire carry only a definite amount of electricity. The size of wire used in the home therefore must be adequate to provide enough electricity for all demands. If a small size wire is overloaded by connecting too many appliances at the same time the wire will heat up and the voltage will drop. For house circuits, No. 12 wire is the smallest size recommended by modern electrical practice.

The homemaker loses in two ways when an electrical circuit is overloaded; (1) the monthly bill contains a small yet appreciable charge for current lost in heating these wires. (2) Electrical appliances, and especially lamps, operate most efficiently at the voltage for which they are designed.

To avoid these losses, it is advisable to plan a wiring system of accepted practice. When lighting fixtures alone are used on a circuit, No. 12 wire may be used. However, No. 10 wire, which is slightly larger, is preferable. Convenience outlet circuits for lamps and ordinary appliances may be similarly wired. Appliances using more than 660 watts necessitate the use of No. 10 wire.

Before making elaborate changes in the lighting, or adding more convenience outlets, it is advisable to check the size of wire to be sure that it is adequate. If the wiring is not adequate, it is a fairly simple matter to install additional circuits to the existing wiring frame work.



The voltage of a lamp is marked on the lamp. When a 115 volt lamp is burned at a voltage of 110, only about 85 per cent efficiency is secured.



READING the METER

YOUR electric current is measured in units called kilowatt hours. One kilowatt hour is equal to the current required to light one 1000 watt Mazda Lamp for one hour. Your meter has either 3 or 4 dials. The dial on the right reads in units of 1 kilowatt hour, the next one in units of 10 kilowatt hours, the third in 100 kilowatt hours, etc. As you consume current the hand on the right dial will move. When it has gone all the way around the dial the hand on the second dial will have moved down to 1, showing that you have consumed 10 kilowatt hours. Suppose that during the next month you consume 32 more kilowatt hours; the dial on the right would read 2, the next dial 4, making a reading of 42 kilowatt hours. The power company would write down 42 kilowatt hours, deduct the 10 you used before, $42 - 10 = 32$ kilowatt hours used during the month. As the readings on the dial mount up month by month, the previous reading is deducted from the last reading to give the number of kilowatt hours consumed. The illustration shows a consumption of 1534 kilowatt hours.





PART FIVE

The ART of MAKING LAMP SHADES at HOME

REPLACING old shades of out-moded design with modern shades not only enhances the room from a purely decorative standpoint, but provides an entirely new standard of illumination.

Old shades are generally closed at the top. The modern shade is open at the top, thus permitting light to be directed to the ceiling. Old shades are likely to be lined with a dark material. The modern shade is lined with a light cream, ivory or white, thus increasing the amount of light reflected.

The modern home-maker can not only add tremendously to the appearance of the home by making new shades, but she can also derive a lot of personal satisfaction in knowing that these new shades represent her own handiwork.

In planning new shades for the home, remember that *eye-comfort illumination* is the first consideration. The lamp shade must first be deep enough to completely conceal the bare lamp from the range of vision. It must be wide enough to permit a wide distribution of light. And it must be open at the top to permit light to be directed to the ceiling so that it will in turn be reflected throughout the room, thus providing general room illumination.

With these definite rules as a beginning, it is easy to proceed with the planning and creation of the shade. Of course, the material selected for the new shade will naturally be a material which will harmonize with the furnishings of the room. A fine silk and lace shade is appropriate for the bedroom, where dainty furnishings are to be found, while a parchment shade is appropriate in the sun room and the living room.

THE WAY TO ASSEMBLE A SHADE

1. SELECTING THE RIGHT FRAME

There are no definite rules as to the right size and proportion of the shade of a lamp to its base. This is a matter of judgment. When judging a frame, it is necessary to be in a seated position so that the lamp is at eye level. When the socket or metal rod shows beneath the edge of the frame, it is too small for the lamp. Since these mechanical parts of the lamp should be covered, a deeper frame is necessary.



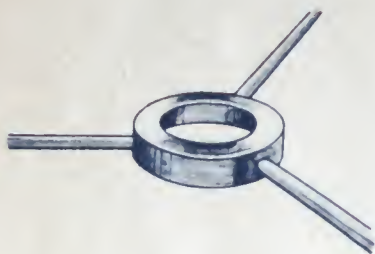


Figure 1



Figure 2



Figure 3



Figure 4

The diameter of the bottom ring of a frame tells the size of that frame. For instance, an 18 inch frame is one that has a bottom diameter of 18 inches.

Floor lamps usually have 18 inch or 20 inch frames.

Bridge lamps usually have 10 inch or 12 inch frames.

Table lamps usually have from 6 inch to 16 inch frames.

FITTERS

The type of fitter, or the way in which a shade is fitted to the lamp, is important in buying a frame.

A *washer fitter* (Fig. 1) is used on junior or floor lamps, and on table lamps that have a finial screwed on the top of the lamp to secure the shade.

A *screw fitter* (Fig. 2) is used on some bridge lamps.

A *clamp fitter* (Fig. 3) is used on table lamps without finials and on bridge lamps of the candle type.

Ceiling fixtures and wall brackets may have a screw fitter, a clamp fitter, or a *collar* (Fig. 4) which is held to the fixture by three tiny screws.

SHAPE

As to the choice of the shape of a frame, the base sometimes gives an indication. For example, a round pottery base will look well with a round cone shade. A hexagonal base may carry a shade of the same shape. On the other hand, a square shaped base should not carry a round shade.

The *round frame* is the one that is most commonly used, principally because it allows light to be directed upward through the top for general illumination. Then, too, a sufficient spread at the bottom of the shade distributes the light properly.

2. SELECTION OF SUITABLE MATERIAL

AMOUNT OF MATERIAL

The simplest way to judge the amount of material to buy for a shade is to cut a paper pattern of the frame and lay it on the goods when buying. For instance, considering 36 inch material for a stretched silk shade:

A 7 inch round frame for a vanity lamp requires $\frac{3}{8}$ of a yard.

A 12 inch round frame for a bridge lamp requires $\frac{1}{2}$ of a yard.

A 16 inch round frame for a bridge lamp requires $\frac{5}{8}$ of a yard.

A 20 inch round frame for a floor lamp requires $1\frac{3}{4}$ yards.

OUTSIDE COVERING

The material of a shade is largely a matter of personal taste, much like any article of furniture that goes into the home. In general, silk shades are used in bedrooms and in other rooms that have rich fabrics, while parchment shades are used in simpler rooms. However, silk shades may be so

tailored that they are suitable in simple rooms and parchment shades may be so elegant that they are suitable in handsomely appointed rooms.

Any fabric that *allows some passage of light* may be used for lamp shades, such as gingham, voile, dotted Swiss, theatrical gauze, chintz, cretonne, organdy, fancy nets, valenciennes lace, chiffon, taffeta, georgette, satin ribbon, pongee, Chinese brocaded silk, strié silk, moire silk, crepe-de-chine, radium silk. Taffeta is one of the easiest of these fabrics with which to work. Fancy papers, parchment, book linen, drafting linen may also be used.

LINING

The material for lining should be of much the same kind as the outside covering, but may be different in color. Again *taffeta* is very satisfactory because it has sufficient body. China silk is not advisable as it soon scorches.

INTERLINING

Before lining, hold the outside fabric and lining fabric about 3 inches away from a lighted bulb to see if a bright spot shows through them. If it does, an interlining is necessary. The color of it may be different from either the lining or outside material. Apricot, rose, peach are interesting tones to try out in turn. Hold the lining, interlining, and outside fabric together before a lighted bulb and it will be found that each change of interlining brings a corresponding change in the color of the light. Choose the most pleasing.

TRIMMINGS

For fabric shades, the trimming may be of velvet ribbon, grosgrain ribbon, French flower trimming, pleated lace, ruffles or pipings that come already made of two colors, a French fold, a French puff, a drop fold, braid, or a picoted ruffle of the shade material.

Parchment shades use worsted, gold metal braid, grosgrain ribbon, velvet ribbon, leatherette binding, or leatherette lacing for trimming. When the desired color in binding cannot be found, adhesive tape may be painted with oil paint to the exact shade desired.

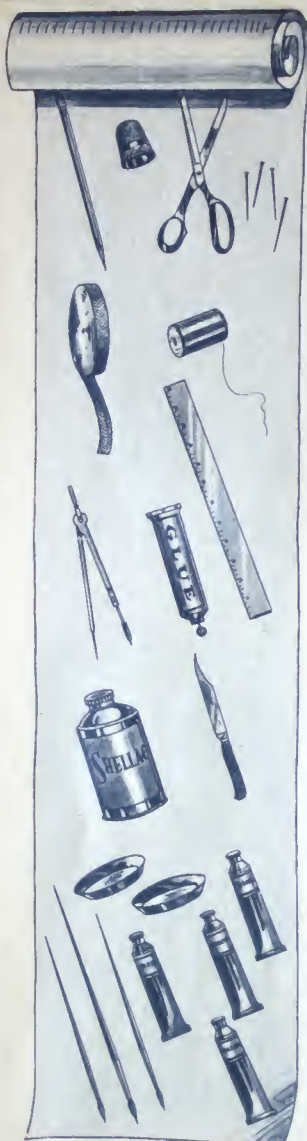
COLOR CHOICE

The *warm colors*—amber, peach, gold, tan, ecru, as well as pale tints of other colors—are the most satisfactory to use in making lamp shades. Deep tones of blue, green, purple, red, are to be avoided as they throw an unpleasant light. The room may call for a touch of these dark colors which may be introduced in the trimmings of shades.

The *pale tints of color* permit some of the light to pass through the shade, and so add to the general illumination which brings to the room a feeling of coziness.

Under artificial light the color of a fabric changes, so if there is difficulty in selecting colors for lamp shades, some





of these hints may be helpful. In a room where

- a. *blue* predominates, use peach or apricot colored shades.
- b. *green* predominates, use gold, ashes of rose or copper colored shades.
- c. *brown* predominates, use tan or gold colored shades with varied colored trimming.
- d. *rose* predominates, use rose beige or pale powder blue shades.
- e. *every color* is used, pale gold colored shades with varied colored trimming.

Bindings and trimmings of shades may show much color, since they are used in small quantities.

3. HELPFUL TOOLS

For fabric shades—pencil and brown paper for patterns, needle, thimble, scissors, small *steel* pins that will not leave marks in silk, taffeta seam binding of the lining color (any other kind will break when pulled tightly), button hole twist letter D (the color of the outside silk), sewing silk (the color of the trimming), a glove finger.

For parchment shades—pencil and ruler, glue, brass fasteners, compass, scissors, white shellac or lacquer, brown paper for patterns, denatured alcohol.

For pleated paper shades—sharp knife or paper cutter, yellow crayon, white shellac or lacquer, a punch that will make an $\frac{1}{8}$ inch hole, brass fasteners, raw linseed oil.

For painting shades—cheese cloth, small tubes of oil paint, turpentine, small dish and brush. Interesting colors are burnt sienna, burnt umber, cadmium yellow, cerulean blue, cobalt green, light red.



THE WAY TO MAKE FABRIC SHADES

BINDING THE FRAME

Cut off binding to the amount of two and one-half times the length of a side wire. (If the frame is large, an 18 or 20 inch frame, the thick wire will require 3 times the length of a side wire).

When beginning to bind the side wire, hold one end of the binding to the wire with the left hand, (Fig. 5). Pass the binding over the top of the frame with the right hand. Throw the binding over the side wire, binding the end piece under. Continue down the wire, always covering half the binding. Pull hard each time the binding is thrown over the wire. Make a knot at the bottom of the side wire, (Fig. 6).

Next, bind the top ring of the frame. Be careful, at the joining of the side wires with the top ring, to wind over and over to cover the joining. Bind the bottom ring of the frame. When a knot at the bottom of the side wire is reached, cover the knot and the end piece by binding them in along the bottom wire.



Figure 5

One of the secrets of making a neat, tailored shade, is a very tight binding. This holds the outer materials firmly. Seam binding other than taffeta will break under the strain of the pull. If seam binding of the color of the shade lining cannot be secured, cut 1 inch bias strips of the lining. Fold double and use as binding.

MAKING TRIMMINGS

Bias fold for covering side seams:—Cut a strip of material on the bias, about one inch wide. Double it and sew the rough edges together along the side seams on the shade. Fold this over, covering the rough edges under it. Sew it down with a slip stitch so that it looks like a French fell.

Drop fold (Fig. 7):—This may be a single or double fold, 2 or 3 inches wide, depending upon the depth of the shade. It is picoted on the bottom and slightly full on the bottom wire of the shade. It falls below the shade. Sometimes two single pieces are used, one longer than the other and different in color.

French fold:—This applies to a shade having a collar consisting of two wires at the top and two wires at the bottom of the shade. To make a collar 1½ inches wide, cut a 4 inch bias strip. Double it first for strength, then bring the rough edges toward the center. Fold the smooth edge three-quarters of the way over this. Turn the fold over and sew to the collar with a slip stitch. A flat tailored bow finishes the end. A finely striped silk, like *strié*, lends itself nicely to a French fold.

French puff (Fig. 8):—For this, a strip of material a bit wider than the collar is corded down the middle and on both edges. The two outside cords are sewed down to the wires of the collar. The center cord is pulled either to the right or left and fastened to the shade. This gives a swirled effect. Stitches do not show underneath the shade.

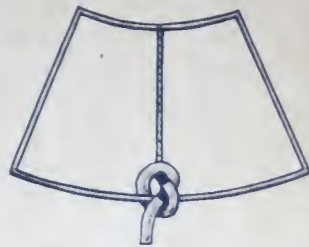


Figure 6

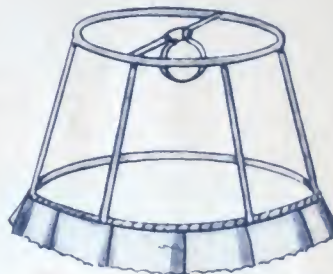


Figure 7



Figure 8

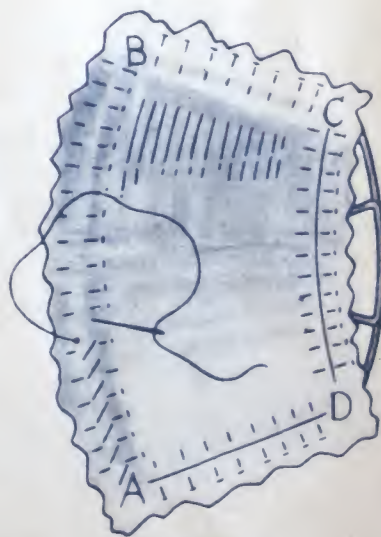


Figure 9

MAKING A STRETCHED SILK SHADE

Bind the frame as shown on opposite page.

Outside lining:—The easiest frame to work with is the round, six-sectioned one. The lining is put on in two pieces. Place over a section one corner of the silk, on the bias. Put a pin in the center of the top and bottom wire and at the corners, of three sections. Then pin every half-inch along the bottom and along the top, stretching the silk taut. Next pin the sides in the same way. It is not necessary to pin the middle side wires. Adjust pins so that there is not a wrinkle. Cut off excess silk, so that about 1 inch is allowed for holding the silk.

Begin to sew at a corner and sew away from you, that is, from A to B, (Fig. 9). Turn the shade around and sew from C to D, always sewing away from you. Turn the shade again



Figure 10

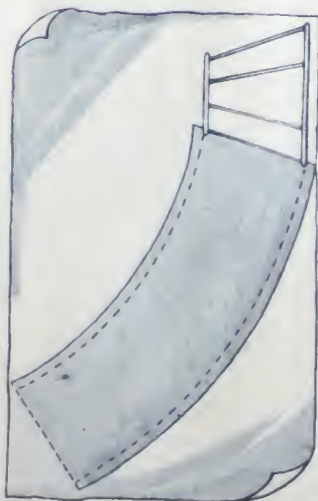


Figure 11

and sew from D to A. Turn it again and sew from B to C. These stitches should be close together and each stitch pulled tightly. Button hole twist D will stand this strain. At every fifth stitch take a back stitch. When sewing the silk to the frame, sew through the top edge of the binding. No stitches show underneath the shade. At each side wire, turn back the silk on itself, (Fig. 10). Sew on top of the first stitching. This is done to strengthen the silk against the pull and to keep the edge from ravelling. Cut excess silk close to the stitching.

Outside covering:—Place the outer piece of silk over the lining, with seams matching. Pin and sew in the same way as the lining was done. Along the bottom, turn back the two thicknesses of silk on itself and sew on top of the first stitching. Cut off excess silk close to the stitching. Do the same thing at the top of the frame and at each side.

Trimming:—If flat trimming is used, sew the braid with sewing silk, covering first the side seams, then the bottom, and then the top of the shade. If ruffled trimming is used, sew it on the top and bottom only. Cover side seams with a very narrow straight or bias fold made of the outer covering, as shown on page 57.

MAKING A SHADE WITH INSIDE FITTED LINING AND INTERLINING

Bind the frame, as shown on page 56.

Fitted lining:—Sometimes the lining is placed inside the shade so that no wires show. This can not be done on a small shade where the lining is close to the bulb, for the silk will be scorched.

Cut a pattern by placing the frame on its side, on a piece of heavy paper (Fig. 11). Draw a line along a side wire. Roll the frame along the paper outlining it with pencil, top and bottom. In doing this, hold the frame very firmly. When the shade has been rolled through half its circumference, draw another line at the side wire. This is the pattern for half the shade. Cut out the pattern 1 inch below the bottom line and 1 inch above the top line to allow for working with the material. The sides, however, must be cut exactly on the lines.

Fold the silk in half, selvage to selvage. Cut lining and outside pieces from the pattern.

The interlining is cut from the same pattern. When cut, turn the silk wrong side out and machine stitch the two side seams, making a small neat seam. Turn the silk right side out and place on top of the frame. Pin along the bottom of the frame, then along the top, stretching the silk taut by pulling out wrinkles at the top. Sew the bottom of the shade,

then the top. Turn the silk back on itself, sew again, and cut off excess silk.

The outside silk is next put on, in the same way as the interlining, with side seams matching.

The inside lining is put on last. Machine stitch it like the outer pieces and place inside the shade with seams matching. Pull top edge over the top ring to the outside of the frame and pin. Do the same thing at the bottom. Sew the top of the shade, then the bottom. There should not be a single wrinkle in the silk. Turn the edges of the silk back on itself and sew again. Cut off excess silk. This inside lining will hang somewhat inside and away from the side wires. An inside lining always fits this way.



THE WAY TO MAKE A PANELLED SHADE

Bind the frame as shown on page 56.

This kind of frame is one that has four, six or eight flat sections (Fig. 12). It is easiest to cover two sections at a time. Measure the distance between three side wires at the bottom of the frame. Then measure the distance from top to bottom along a side wire. Add 1 inch all around. This excess silk will allow for easy handling. Then cut from both the lining and outside silk as many panels of this size as are needed to cover the frame. Panels are cut on the straight of the goods. Pin a panel of silk first along the bottom, then along the top, drawing all the wrinkles out through the top. Allow about 1 inch of silk to hang over all wires, for holding while working. Pin sides, stretching silk tightly. Sew as directed for stretched silk shade, page 57. Pin and sew the outer covering in the same way. Sew on trimming.



THE WAY TO MAKE A PLEATED SHADE

Pleated shades for vanity lamps are often made of georgette, trimmed with French flower trimming and ruffle.

Bind the frame as shown on page 56.

Cut off $2\frac{1}{2}$ to 3 times the bottom circumference of the frame for the length, and 2 inches more than the measurement of a side wire for the width. The ends of this long length of material may be machine stitched first, or the end of the material may be tucked into the last pleat. It is well to use a frame with almost perpendicular sides, so that there will not be much overlapping of pleats at the top of the shade.

Bind frame and put on lining as for stretched silk shade, page 57. Divide the material into quarters and put a pin at each quarter. Divide the top and bottom rings of the frame

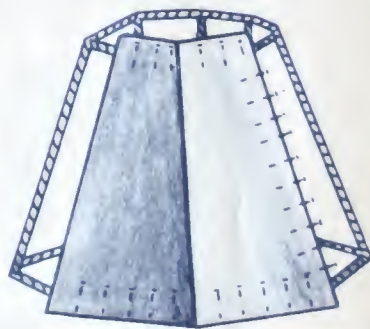


Figure 12



Shades for the child's room can easily be decorated with animals cut out of colored paper and glued onto the shade.



Figure 13

into quarters and put a pin at each quarter, placing the first pin at a side wire. Pin quarters of material to quarters of frame, top and bottom. Along the bottom lay the material in fine pleats between pins (Fig. 13). Then pleat along the top. These pleats will be deeper than those at the bottom, as the top wire is smaller in circumference. Hold the shade to the light occasionally to see if the pleats are even. The top pleats must be pulled very tightly and very straight. Sew around the shade in the same order as given for stretched silk shade, page 57. Take a stitch at the end and in the middle of each pleat. This is necessary for the pleats to set right. Cut off excess material. Sew on the trimming.



MAKING A SHIRRED SHADE

Shirred shades (Fig. 14) are easy to make, but do not present the tailored appearance of the stretched shades.



Figure 14

Bind the frame as shown on page 56. A shirred lining may be used with a shirred shade. For the lining cut a straight piece 2 inches longer than the measurement of the bottom circumference of the frame, and 2 inches wider than the measurement of a side wire. The ends of this long piece may be sewed on the machine. Pin the seam of the lining to a side wire. Pin it along the bottom of the frame with no gathers. Pin the top in tiny pleats. Sew the bottom and the top. To cut outside covering, double the circumference of the bottom wire of the frame for the length of the material; and add 2 inches to the measurement of a side wire for the width of the material. Sew the side seam on the machine. Divide the material and the top and bottom of the frame into quarters, as shown for pleated shade (above). Pin material and shir between pins, along the bottom first.

The beauty of the shade depends upon the evenness of the tiny pleats. If the stitches are uneven, the shirring will not be uniform. It is wise to measure $\frac{1}{8}$ inch between each stitch, to be exact. Sew along the bottom. At the top, gather the material in the same way and sew. A suitable trimming is a picoté ruffle of the outside material, gathered and sewed through the middle.



MAKING PARCHMENT SHADES

Many department stores and art stores carry materials for making parchment shades. The wire frames for parchment shades may be painted with quick drying enamel or they may be bound with taffeta silk seam binding as shown on page 56.



MAKING A BOUND SHADE

Paint or bind the frame.

Patterns:—There are two methods of making patterns. The *cut and try* method is the easier. Roll the frame and mark off its outline on heavy paper, as shown for inside fitted silk lining, page 58. Continue marking all the way around the shade instead of stopping half way. Allow $\frac{1}{2}$ inch on each end for a seam. Cut out pattern and try on the frame. Put fasteners in the seam to hold the pattern on the frame. Fit pattern to frame and cut off excess parchment. Hold the shade to the light to see if the seam is parallel to a side wire. When this is a perfect fit, take the pattern off the frame, open, and cut the pattern out of the parchment. Side wires may be removed at this stage of the work with wire cutters. Then there are two rings, top and bottom, with which to work.

The second method is the *planned* method, which is apt to be more exact (Fig. 15). On a piece of heavy paper, draw a straight line. Take any point, Y, on this line and mark off AB, equal in length to the *diameter* of the bottom ring of the frame. Divide the line in half. AY equals YB. At Y draw a line OY, perpendicular to this line. Mark off on this line the exact height that the shade is to be when finished, YX. Through X, draw line CD, parallel to AB and equal to the diameter of the top ring of the frame. CX = XD. The lines so far form the outline of the shade. The height of the shade may be regulated by shortening or lengthening XY.

Extend the lines AC and BD until they meet at O. With OY and OX as radii, draw arcs of the two circles. If the compass is not large enough, tie a piece of string around the bottom of a pencil and tie the other end of the string around a pin stuck in the paper at O. Take any point, R, and join it in a straight line to the center of the circle, at O. Measure the distance, YB. Starting at R, mark this distance off with the compass a bit more than 6 times along the larger circle. This will allow for overlapping. Draw a line from this point, S, to the center. Cut out the pattern and see how it fits the rings. If necessary, make changes. Cut the pattern out of parchment. Fasten the sides with glue or with small fasteners.

Making the shade:—If the shade is to have a binding, sew with strong thread the bottom ring to the bottom of the parchment (Fig. 16). Then sew the top ring in the same way. Fasten the sides. Stitches must be kept close to the wire so that the binding will cover them. If *ribbon* is used for binding, it is sewed on with a tiny stitch on the right side and a long stitch underneath. If *leatherette binding* is used, it is glued on the edge. Use glue sparingly for best results. This binding comes cut on the bias, so if it is pulled a bit before using, it goes on easier.

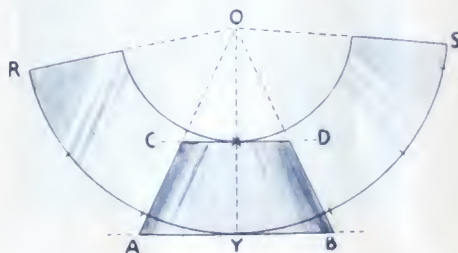


Figure 15

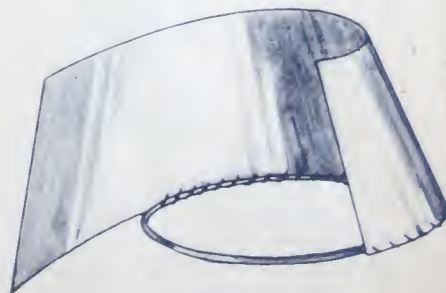


Figure 16



If ribbon or leatherette binding is used, the rings are not sewed to the parchment. Punch a row of holes $\frac{1}{4}$ inch from the edge and $\frac{1}{2}$ inch apart, along the top and bottom of the parchment. To begin, tie a knot in the lacing. Bind the parchment to the wire by passing the lacing through the holes in the parchment, over the wire and then through the next hole. To finish, pull through the last hole on the wrong side and tie a knot. Run loose end back through two holes.

Lastly, the outside of the shade is painted with white shellac, using a soft brush. More than one coat makes a shiny finish. If a dull finish is desired, dilute the shellac with denatured alcohol.



DECORATING A PARCHMENT SHADE

PARCHMENT shades may be bought already made, and decorated to suit.

To color parchment:—Paint may be applied on the inside or outside of the shade, or both. Care should be taken, however, to keep the color pale so that it will not rob one of too much light.

An amber color is often used, as it harmonizes with almost any color in a room. To secure amber color, mix in a small dish a tiny bit of burnt sienna oil paint, burnt umber, and cadmium yellow, with a teaspoon of turpentine. Try this on a scrap of parchment. Dip a small wad of cheesecloth into the mixture and rub it on the parchment with circular motion. If the color is too dark, add a little turpentine. Allow to dry for twenty-four hours.

For further interest, begin with dark color at the base of the shade and gradually lighten it toward the top by adding turpentine. Or, use one color at the bottom of the shade and then, working from the top of the shade down, use another color. Blend them near the center. This is much easier than it sounds. Hold the shade to the light once in a while to get the effect of the color.

Painted bands:—One or more bands of color near the top and bottom of a shade may carry out the colors in the base of a lamp, or the colors in the room, as one desires. This color may be strong, if desired, as little is used. Sometimes the bands are outlined in black or in other colors.

Painted design:—An appropriate design may be stenciled on a shade. Or, another way to do this is to place a design under the shade and hold to the light. The design can readily be seen and traced on the outside. A border may be painted around the bottom of a shade by repeating a bit of the design found in the base of the lamp.

Prints:—Godey prints, French scenes, English scenes, hunting scenes, ship prints, flower prints are all interesting. If one is used, glue it on the side of the shade opposite the



seam. On panelled shades more than one may be used, if desired. To finish a print on a shade, one or more lines may be drawn in color or India ink, around the print and on the shade. Paste the print on the shade after it is made, not before.

Decalcomanias of ships or flowers are good to use. Directions for use come with them.

Silhouettes are appropriate on Colonial shades. In children's rooms, little girl or boy silhouettes are pleasing. These are glued on the shade after it is made.



THE WAY TO MAKE A PLEATED PAPER SHADE

In the summer time it is well to put away silk shades that will catch the dust and substitute inexpensive paper shades. The easiest way to make them is to pleat them.

Paint or bind the frame as shown on page 56.

Cut a strip of paper about $2\frac{1}{2}$ times the circumference of the bottom of the shade for length and 4 inches more than the height of the frame for width. The cutting may be done with a sharp knife or paper cutter, as this does away with pencil marks and makes a clean cut. At the top and bottom, fold the paper inside 1 inch for strength. Use a metal edged ruler and bend back over the sharp edge. Do not paste.

As a guide in punching holes (Fig. 17), draw on the wrong side of the paper a light line $\frac{3}{4}$ inch from the top, and a second line $1\frac{1}{2}$ inches from the top. A yellow crayon is best since it shows least after erasure.

To pleat the paper (Fig. 18), fold it in the middle. Fold each end to the center. Continue folding until the sections are about 2 inches wide.

All these folds have been in the same direction. Turn the paper over. Fold again through the center of each section. This last fold brings out the pleat.

Hold the paper wrong side toward you. On the yellow line that is near the top, punch holes on the fold that is toward you. Turn the paper with the folds toward you. Punch a row of holes on the lower yellow line in the middle of each pleat, through two thicknesses of paper at once. To make this paper translucent to the light, stretch open the pleats and lay the paper down flat on a table. Paint the back of the paper with raw linseed oil. Let it dry over night. Lay the shade in pleats again. Bring the two ends together, using glue or tiny brass fasteners. The top row of holes in the paper forms a slot into which the top wire of the frame will fit securely, when the cord is pulled and tied. Thread the cord through the second row of holes. Tighten the cord to adjust the shade to the frame. Tie a bow in the cord opposite the seam.

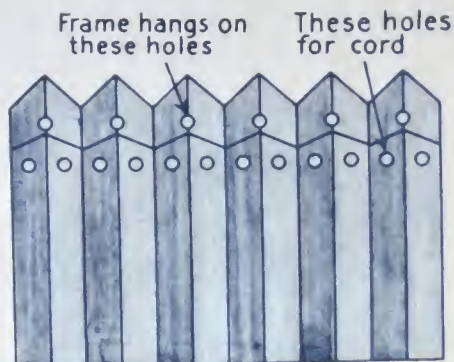


Figure 17

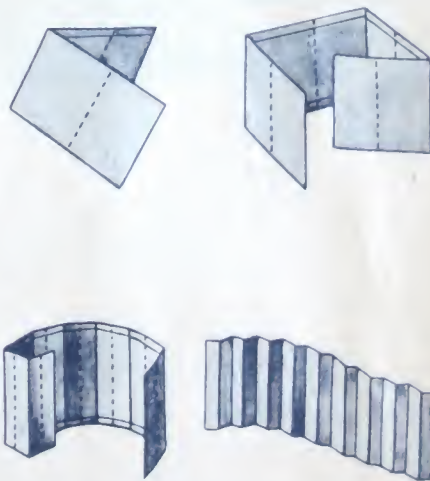


Figure 18



*I*t is hoped that this book will be
instrumental in making your home
more comfortable and attractive
by the use of well planned lighting.







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